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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,726	12/24/2003	Toshinori Tanaka	Q79154	8314
23373	7590	02/13/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LUM VANNUCCI, LEE SIN YEE	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/743,726

Applicant(s)

TANAKA ET AL.

Examiner

Lee Lum

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/7/05 and 1/20/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. An After-Final Request for Reconsideration was filed 1/20/06.

Upon reconsideration, Examiner provides new rejections because the prior art used in the previous rejections were found to be inappropriate. *She apologizes for the inconvenience.*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- A. **Claims 1, 3-5, 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekihara et al 6779990 in view of Appleyard 6491131.

Re **Claims 1, 4, 5 and 8**, Sekihara discloses a motor and pump configuration comprising Motor M having rotating shaft 26,

Hydraulic pump 10, 11 disposed at one end of the shaft, and driven by the motor,

**First bearing** 27 on the shaft opposite the pump, including

An outer ring/race (unidentified, inherent for bearing), and,

Unidentified first elastic body/wave washer pressing the bearing towards the pump (fig 2), and,

Second elastic body (e.g., similar to element 35; as provided in c10, In 60-66, with emphasis on *"the biasing means can also be provided for the bearing 27...in the same manner as being provided for the bearing 30"* (emphasis added), where in fig 8, bearing 30 has two bodies 35 and 36),

The first bearing being accommodated in a receiving portion (unidentified in fig 2; protruding portion of housing 23),

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The receiving portion including a gap between it and the bearing  
(unidentified, inherent),

**Second bearing 30** (one of a plurality of bearings here) on the side of the shaft having the pump.

The reference does not disclose the motor-and-pump assembly as being included in an electro-hydraulic power steering apparatus. Applegate shows an exemplary power steering system that may comprise this assembly. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include the power steering system, as shown in Applegate, as one possible application for the motor-and- pump assembly, thus increasing applicability of the latter. Prior art discloses many other applications which require a motor-driven pump.

(It is also noted that NO other language/structure in the claims is provided that further describes/supports the "power steering apparatus", NOR as combined with the motor-and-pump assembly as recited, to distinguish this apparatus from any other that may comprise the motor-and-pump assembly)

Re **Claim 3**, Sekihara further discloses another bearing 28 (or 29) on the side of the pump being larger than the first bearing.

Re **Claim 7**, Sekihara discloses the elements as provided above, but does not disclose the first elastic body as an O-ring. Appleyard shows bearing 9 with first elastic body/O-ring 14 for support. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Appleyard, to prevent the bearing from rotating, thus ensuring proper operation of the moving components of the apparatus. This use of an O-ring on a bearing is extremely well-known.

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B. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sekihara in view of Appleyard, and in further view of Ojima et al 6447271.

The previous references do not disclose a control circuit for the pump, while Ojima shows this very well-known component in c5, ln 56-49. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Ojima, to control the pump according to the requirements of the apparatus requiring the pump, thus ensuring proper operation of the assembly. Control circuits for pump assemblies are extremely well-known.

C. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sekihara in view of Appleyard, and in further view of Kobayashi et al 5964582.

The previous references do not disclose an elastic body pressing a disc spring towards the pump. Kobayashi shows a similar motor-and-pump configuration in fig 4, with

(separate) elastic body 65 (fig 6, and c5, ln 49-55) pressing disc springs/washers 25 or 66, towards the pump (towards suction).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Kobayashi, to further ensure proper axial pressure on, and fit between, the bearing, thus maximizing the proper operation of pump components. Prior art provides many bearing configurations including more than one elastic component for pressure/sealing characteristics.

3. The prior art considered pertinent, but not relied upon, includes:  
Brown 5591019, Murakami et al 6550567.

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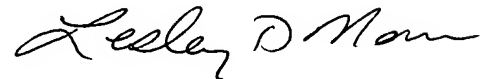
4. RESPONSE TO REMARKS.

Upon reconsideration, Examiner has provided new rejections, and again, *sincerely apologizes for the inconvenience*. Sekihara in view of Appleyard, etc, obviates all recitations.

5. Communication with the Examiner/USPTO

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272-6649, M-F, 9-5. If she cannot be reached, her supervisor, Ms. Lesley Morris, may be reached at 571 272-6651. Our central fax number is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. For unpublished applications - private PAIR only. For published applications - private or public PAIR. For more information re PAIR - <http://pair-direct.uspto.gov>. Questions re private PAIR - contact the Electronic Business Center (EBC) at 866 217-9197.



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SENIOR PATENT EXAMINER  
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Ms. Lee S. Lum-Vannucci  
Examiner  
2/2/06

